

87979

Z/039/61/022/001/001/006
E192/E382**Fault-proneness in Electronic Equipment and Its Probability**

is now formed. A general term of this sequence can be expressed by:

$$m(t) = \frac{n(t) - n(t + \Delta t)}{n(t) \cdot \Delta t}$$

Here, $m(t)$ has the dimension of 1/hour and it is a measure of the fault-proneness of the component. For practical purposes it can be assumed that $m(t)$ is a continuous function of time $\mu(t)$. Now the probability that a component which is functioning correctly at time t_1 will be functioning correctly also at time t_2 , where $t_2 > t_1$, is given by:

$$P_{t_1}(t_2) = \exp \left[- \int_{t_1}^{t_2} \mu(t) dt \right] \quad (2).$$

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If $\mu(t)$ is constant and equal to μ , Eq. (2) can be written as:

$$P_{t_1}(t_2) = e^{-\mu(t_2 - t_1)} \quad (3).$$

From Eq. (3) it is easily found that the average time of faultless operation for a component is:

$$\bar{T}_T = \frac{1 - e^{-\mu T}}{\mu} \quad (4).$$

If the equipment contains N_1 components with fault-proneness coefficient μ_1 , N_2 components with μ_2 , and so on... the probability of correct functioning of the system after time t is expressed by:

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$$P^*(t) = e^{-(\mu_1 N_1 + \mu_2 N_2 + \dots)t} = e^{-\mu^* t} \quad (6)$$

where $\mu^* = \mu_1 N_1 + \mu_2 N_2 + \dots$. It is seen that Eq. (6) is similar to Eq. (3), where μ^* is the fault-proneness coefficient of the equipment as a whole. The above formulae are used to analyse some practical examples. It is shown, for instance, that in a system containing 200 electron tubes and having $\mu = 5 \times 10^{-5}$, the average time of faultless functioning is $\bar{t} = 100$ hours. By examining the formulae it is possible to suggest the methods of improving the reliability of electronic equipment. It is seen that the reliability can be increased by reducing μ for individual components, or by employing a different type of component and reducing the total number of components. Another method of increasing the reliability consists of arranging the equipment in such a way that the fault of one component does not

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interrupt the functioning of the whole equipment. The simplest way of achieving this is by doubling or trebling the various units in the equipment, i.e. by introducing redundancy.

There are 1 figure, 1 table and 34 non-Czech references.

ASSOCIATION: Tesla Pardubice, n.p. - Výzkumný a vývojový závod Opočínek (Tesla Pardubice - Research and Development Establishment, Opočínek)

SUBMITTED: August 24, 1960

Card 5/5

L 21324-66

ACC NR: AP6010919

SOURCE CODE: CZ/0039/65/026/010/0620/0622

AUTHOR: Prouza, Ludvik (Doctor; Candidate of sciences)

33

B

ORG: Radio Engineering Research Institute, Opocinek (Ustav pro vyzkum radiotechniky)

TITLE: Contribution to the synthesis of simple linear pulse filter networks in the Z plane

SOURCE: Slaboproudny obzor, v. 26, no. 10, 1965, 620-622

TOPIC TAGS: electric filter, electric network

ABSTRACT:

The requirements regards linear pulse filter networks for pulse systems are usually formulated mathematically. In some simple cases, however, they may be formulated only intuitively. Examples are presented to illustrate that it is easy to synthetize the network in the Z plane, on the basis of the geometric aspect. The case of a simple high-pass filter and simple differentiator connected with it is treated, and some properties of these networks are demonstrated in greater detail. Orig. art. has: 5 figures and 10 formulas. [JPRS]

SUB CODE: 09 / SUBM DATE: 05Apr65 / OTH REF: 006 / SOV REF: 003

Card 1/1 40

UDC: 621.392.52

E NIVEL-66 DWP(1) LJR(c) GG/BB
ACC NR: AP6030831

SOURCE CODE: CZ/0080/65/000/007/0169/0170

AUTHOR: Prouza, Ludvik (Doctor; Candidate of sciences)

ORG: Tesla Pardubice, n.p.; Institute for Radio Engineering Research, Opocinek
(Ustav pro vyzkum radiotechniky)

43

B

TITLE: Present situation and the prospects of analog computers 160

SOURCE: Automatizace, no. 7, 1965, 169-170

TOPIC TAGS: analog computer, computer research

ABSTRACT: The article supplements reports in No. 4, 1962 and No. 7, 1964 in presenting a survey of the present situation and the prospects of analog computers. New types and the directions of the present development of analog computers are discussed. It is concluded that they will have further rapid development.

[JPRS: 32,496]

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 010 / OTH REF: 050

Cord 1/1

hs

UDC: 681.142-83

1969 1262

An apparatus for the automatic execution of sequential acceptance procedures.

p. 466 (Slaboproud Obzor. Vol. 18, no. 7, July 1957. Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) I.C. Vol. 7, no. 2,
February 1958

PURKHA, L.

Kontský, Z. Some remarks on the theory and practice of statistical quality control. p. 136.
SLAVOVNÝ ČASOPIS, Praha, Vol. 16, no. 3, Mar. 1955.

SO: Monthly List of East European Accessions, (SAL), LC, Vol. 4, no. 10, Oct. 1955,
Uncl.

PROUZA, Ludvik, dr.

The output signal spectrum of a random noise generator. Slaboproudý
obzor 21 no.9:527-528 S '60. (EEAI 10:1)

1. TESLA Pardubice, n.p.
(Pulse generators)

PROUTA, Ludvik, dr. CSc.

Analog computers, their present state and outlook from the technical and economic viewpoints. Automatizace '7 no. 7: 173-175 J1 '64.

1. Tesla Pardubice National Enterprise, Institute of Radio Engineering Research, Opocinek.

9,3260

82757

Z/039/60/021/09/001/006

E073/E535

AUTHOR: Prouza, Ludvík, DoctorTITLE: Output Signal Spectrum of a Certain Random Noise
Generator²⁵

PERIODICAL: Slaboproudý obzor, 1960, Vol.21, No.9, pp.527-528

TEXT: J. Havel (Ref.1) described a random noise generator; an approximate formula for the spectral density of the noise and the output end of the filter F was derived by C.Pantelopoulos in a paper read at the second Prague Conference on Information Theory (Ref.3). In this paper an accurate formula is derived, Eq.(8), p.528. Furthermore, an approximate formula is derived, Eq.(11), by a different procedure from that of Pantelopoulos. If the filter of the generator has a low frequency pass-band which is sufficiently narrow, the simplified equation (11) can be used. For the same conditions the correlation function at the output end can be expressed by Eq.(13) which has been derived by means of a different procedure by Pantelopoulos (Ref.3). There are 5 references: 3 Czech, 1 French and 1 English.

ASSOCIATION: TESLA Pardubice.

SUBMITTED: August 26, 1959

Card 1/1

PROUZA, Miroslav, kandidat technickych ved

Development of the blast furnace technology. Hut listy 16
no.3:205-208 Mr '61.

1. Vyzkumny ustav, Vitkovice zelezarny Klementa Gottwalda,
Ostrava.

PROUZA, M.

PROUZA, M. Artificial moistening of blast-furnace air. p. 97.

Vol. 12, no. 2, Feb. 1957

HUTNICKE LISTY

TECHNOLOGY

Czechoslovakia

See: East European Accession, Vol. 6, No. 5, May 1957

P R 042-A, m.

4
18
"Thermal Effects of Steam Additions to the Blast on the
Processes Occurring in the Hearth Zone of the Blast Furnace.
M. Prozda. (Hutnické Listy, 1956, 11, (10), 577-579). [In
Czech]. The use of artificially moistened blast is considered
on the basis of existing experience and from the point of view
of thermodynamics. It is shown that strict control of humi-
dity is required, a high steam content of the blast necessitating
a high blast temperature. Otherwise a deterioration in the
coke rate may result." p. 18

PROUZA, M.

Steam Additions to Blast Furnace Slag. M. Prozna
(Hummels Taty, 1957, 12, 1), 97-103. (In Czech). The effect of steam additions is discussed on the basis of two years' experience with the method in Osvobozenek steelworks, and with special reference to the recent Soviet literature. Steam additions were found to be beneficial only over short periods in which the blast temperature and other variables lie within definite bounds. It is concluded that higher blast temperatures and much stricter control of the operating conditions of the blast furnace are a prerequisite for deriving advantages from moisture additions to the blast. These conditions were not as yet fully met in Osvobozenek steelworks.—P. V.

PL
arx

PROUTA, H.

Metallurgic characteristics and the classification of iron ores.

P. 1020. (HUTNICKE LISTY) (Brno, Czechoslovakia) Vol. 12, no. 11, Nov. 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, May 1958

TEINDL, J., prof., inz., Dr.Sc.; MYSLIVEC, T., inz., C.Sc.; PROUZA, M.,
doc., inz., C.Sc.; KINSKY, Fr., inz., dr.; KLIK, L., inz.; NEMEC, J.,
prof., inz., dr., Dr.Sc.; STARON, J., inz.; ZILVAR, V., inz.

"Science of materials" by [akademik] Frantisek Pisek, Ladislav Jenicek.
Pt.3. Vol.1: "Outline of the development of materials. Theory of
metallurgical processes. General metallurgy." Vol.2: "Production
of iron, steel and nonferrous metals. Nonmetallic materials."
Reviewed by J. Teindl, T. Myslivec, M. Prouza, Fr. Kinsky, L. Klik,
J. Nemec, J. Staron, V. Zilvar. Kut listy 16 no.4:299-304 Ap '63.

1. Cten korespondent Ceskoslovenske akademie ved (for Teindl and Kinsky).

PROLEZA, Miroslav, inz., CSc.

Technological principles of blast furnace automatic burdening.
Hut listy 18 no.6:381-388 Je '63.

1. Výzkumný ústav, Vítkovické železárnky Klementa Gottwalda,
Ostrava.

PROUTA, Miroslav, kandidat technickych ved

Technical control of automatic operation of blast furnaces. Hnt
listy 17 no.3:155-157 Mr '62.

1. Vyzkumny ustav, Vitkovicke zelszarny Klementa Gottwalda, Ostrava.

PROUZA, M.

PROUZA, M. Basic tasks in the production of primary metallurgic products. p. 433.

Vol. 5, No. 10, Oct. 1955
ZA SOCIALISTICKU VELKU TECHNIKU
TECHNICKY
Praha, Czechoslovakia

See: East European Accessions, Vol. 5, No. 5, May 1956

PROUZA, M.

PROUZA, M. Thermal effect of artificially moistened wind on the blast-furnace hearth process. p. 577

Vol. 11, no. 10, Oct. 1956

HUTNICKE LISTY

TECHNOLOGY

Brno, Czechoslovakia

S₆: East European Accession Vol. 6, No. 2, 1957

PROJ.: Miroslav, inz. Čes.

Importance of the evaluation of iron ore properties for the development of blast furnace operation methods. Hut listy 20 no. 1; 3-12 Ja '65.

1. Research Institute of Metallurgy of the Vítkovické závody Klašterec nad Ohří National Enterprise, Ostrava.

L 3757-66 EWP(t)/EWP(b) JD

ACC NR: AP5027860

CZ/0034/65/000/001/0003/0012

AUTHOR: Prouza, Miroslav (Engineer, Candidate of sciences)

TITLE: Evaluation of the iron ore properties and its importance for the blast furnace practice

SOURCE: Hutnické listy, no. 1, 1965, 3-12

TOPIC TAGS: iron, blast furnace, coke, metal property

ABSTRACT: The computation of the optimum composition of the blast furnace burden should be based on the chemical analyses of the ores, and on their technological properties. The operation of the blast furnace and the desirable ratio of ore to coke are a function of these properties. The economical value of the ore is also important, so that optimum operation could be achieved. A method for the computation of useful values of ores is described; the necessary laboratory work required for this evaluation is described. Orig. art. has 24 formulas, 2 figures, 1 table.

ASSOCIATION: Vyzkumný ustav metalurgický VZKG, Ostrava (Metallurgical Research Institute, VZKG)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, IE

NR REF Sov: 001

OTHER: 003

JPRS

Card 1/1 BC

Prouza Miroslav

8764* (Czech) Artificial Blast Furnace Blast Humidification. Umělá vlhkost větru pro vysoké peci. Miroslav Prouza. *Hutnické Listy*, v. 12, Feb., 1957, p. 97-102.

The water vapor affects material and thermal balances of the blast furnace and accelerates oxidation-reduction processes. Degree of blast wetting is determined by factors such as climatic conditions and capacity of blast heaters.

1
Prouza

PS:mt

PROVÁZ, J.

621.996.621.1

962. - A SIMPLIFIED DIVERSITY RECEPTION EQUIPMENT.

J.Provaz

Slovenský Obzor, Vol. 18, No. 6, 358-62 (1957). In Czech.
The equipment, type ZVP3, is an improved and simplified
version of the earlier Czechoslovak system (see Abstr. 1265/1953).
ZVP3 is a double-diversity system and consists of two aerials
followed by wide-range pre-amplifiers (0.3 to 30 Mc/s), and two
radio receivers which can be tuned over frequencies 0.3 to 30 Mc/s
(in 12 ranges). The system can be used for telephony and telegraphy
and has an overall sensitivity of 1 μ V. The performance of ZVP3 is
comparable with that of the earlier equipment. The system can
further be simplified by employing an automatic aerial switching
unit, type APA, which is connected directly to the two aerials. The
switch changes over to the second aerial whenever the signal of the
first aerial becomes lower than a certain predetermined value. A
system fitted with the switch has only one receiver. General
characteristics of ZVP3 and APA and their block schematics are
given.

R.S.Sidorowicz

PROUTA, MIROSLAV

✓ 2622* (Czech.) Thermal Effect of Artificially Moistened Blast on the Processes in the Blast-Furnace Hearth. Tepelný účinek uměle vlhkého větru na pochod v nisťišti. Miroslav Prouta. Hutnické Listy, v. 11, no. 10, Oct. 1950, p. 577-579.

Effect of humid air on heat balance of blast-furnace hearth.
Use of vapor is inseparably combined with the preheating of air to high temperature.

KOMARIK, Milany PROUZA, Miroslav

Technical Dentakryl under sliding conditions. Stroj vyr 12
no.9364&..650 S '64.

1. Texlen National Enterprise, Trutnov.

PROUZA, V.

2

CZECHOSLOVAKIA

PROUZA, V; SATTRAN, V; SKOCEK, V.

Central Geological Institute (Ustredni ustav geologicky)
Prague (for all)

Prague, Vestnik ustredniho ustavu geologickeho, No 5, 1963,
pp 337-340

"New Knowledge of the Permo-Carboniferous and its
Substratum in the Ohre Area."

PROVKA, Vladimir

Modern machines for the surface treatment of wrapping and
printing paper. Papir & celulcsa 20 no.2:52-55 F '65.

1. Prazske papirny, Prague.

PRAGUE, CZECHOSLOVAKIA

PROUTZA, Jaroslav [Prouza, Jaroslaw].

From Prague. Sov. torg. no.11:54-55 N '57.

(MIRA 10*12)

1. Glavnnyy redaktor zhurnala "Sotsialisticheskaya torgovlya."
(Czechoslovakia--Retail trade)

MAZAR, Jaroslav; VAKASEK, Jaroslav; MATEJA, František. Technicke spolu-
práce: MICHALCOVÁ, V.; PROUZOVA, H.; KLAZAROVÁ, M.

Blood coagulation findings in experimentally burned dogs.
Sborn. red. pren. lek. fak. Karlov. Univ. 7 no. 5 777-789
1961.

I. II. Interní klinika a katedra všeobecného a klinického lekarství
(prednosta: prof. MUDr. V. Jurkovič, DrSc.).

GASANOV, K.; PROVALINSKIY, M.

The Kirovobad Aluminum plant. Sov. profsciuz 18 no.19:20-21
0 '62. (MIRA 15:9)
(Kirovobad—Aluminum industry)

S/0057/64/034/001/0186/0188

ACCESSION NR: AP4009942

AUTHOR: Provalov,A.V.; Tert'yakov,O.A.; Shestopalov,V.P.

TITLE: Experimental investigation of the diffraction of electromagnetic waves by double metallic gratings

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, n.1, 1964, 186-188

TOPIC TAGS: diffraction, electromagnetic waves, microwave diffraction, microwave grating, diffraction grating, double grating, double diffraction grating

ABSTRACT: Normal incidence reflection and transmission coefficients of 34 double-metallic diffraction gratings were measured and the results were compared with theoretical calculations previously published by two of the authors (O.A.Tert'yakov and V.P.Shestopalov,ZHTF,33,10,1963). Each double grating consisted of two identical plane gratings so mounted parallel to each other that the plane midway between them was the symmetry plane of the system. The component plane gratings were constructed by fastening copper foil strips to a sheet of polystyrene foam. The ratio of slot width to grating constant was varied from about 0.2 to 0.6; the ratio of the grating constant to the wavelength was varied from 0.6 to 1.6; the ratio of the distance

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ACC.NR: AP4009942

between the component gratings to the grating constant was varied from 0.25 to 2. The dimensions of the gratings were 19.5 cm x 14.5 cm, but the actual grating spacings and wavelengths employed are not given. Microwaves were normally incident on the gratings with the electric vector parallel to the slots. The radiating and receiving antennas were identical horns having directional pattern widths of about 1 $^{\circ}$ in the E plane and 7 $^{\circ}$ in the H plane. The measured and calculated reflection and transmission coefficients are tabulated. The agreement is satisfactory and thus justifies use of the present experimental techniques in the investigation of more complex structures for which an exact theory is not available. Orig.art.has: 3 figures and 2 tables.

ASSOCIATION: Khar'kovskiy gosuniversitet im.A.M.Gor'kogo (Khar'kov State University)

SUBMITTED: 29Jul63

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: PH

NR REF SOV: C02

OTHER: 000

Card 2/2

PROVALOV, A.V.; TRET'YAKOV, O.A.; SHESTOPALOV, V.P.

Experimental study of the diffraction of electromagnetic waves on
double metal gratings. Zhur. tekhn. fiz. 39 no.1:186-188 Ja '64.
(MIRA 17:1)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo.

1 19179-63

ENT(1)/BDS AFFTC/ASD/IJP(C)/SSD

ACCESSION NR: AR3004395

S/0274/63/000/005/A076/A077

56

SOURCE: RZh. Radiotekhnika i elektronika i elektrosvyaz', Ab. 5A477

AUTHOR: Provalov, A.V., Sheyko, V.P., Sidorenko, B.G.

TITLE: The possibility of employing dense wire gratings in interferometers for ultrahigh frequency measurements

CITED SOURCE: Uch. zap. Khar'kovsk. un-t, v. 121, 1962, Tr. Radiofiz. fak., 5, 139-144

TOPIC TAGS: interferometer, diffraction grating, ultrahigh frequency measurement, wavelength measurement

TRANSLATION: The authors present the results of an experimental determination of the parameters of dense wire diffraction gratings, in the 8-mm range. A diffraction grating was placed between the emitting and receiving speakers. A determination was made of the coefficient of passage and reflection of the grating as a function of the angle of wavefront incidence. The disparity between the computed and experimental values did not exceed 20%. It was concluded that the

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1 19179-63

ACCESSION NR: AR3004395

O
rotary interferometer with a diffraction grating makes possible the measurement
of wavelengths in the millimeter range with an accuracy of $10^{-3} : 10^{-4}$. R.M.

DATE ACQ: 25Jun63

SUB CODE: GE

ENCL: 00

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L 16843-63

PC-4/Pt-4 RM/MAY

ACCESSION NR: AR3006323

EWP(j)/EWT(1)/EWT(m)/BDS/ES(s)-2 AFFTC/ASD/ESD-3/SSD

S/0058/63/000/007/H026/H026

75

72

SOURCE: RZh. Fizika, Abs. 7zh170

AUTHOR: Provalov, A. V.; Tret'yakov, O. A.; Shestopalov, V. P.

TITLE: Diffraction of electromagnetic waves on a double plane metal grating built on a slab of an isotropic dielectric

CITED SOURCE: Uch. zap. Khar'kovsk. un-t, v. 127, 1962, Tr. Radiofiz. fak., v. 6, 12-18

TOPIC TAGS: Wave propagation, diffraction, grating, dispersion

TRANSLATION: A theoretical study is made of the diffraction of electromagnetic waves on a double plane-parallel grating, representing a system of metallic ribbons of width d, having a period , situated on both sides of a plane dielectric layer of thickness a, with a complex dielectric constant $\epsilon = \epsilon' + i\epsilon''$. The ribbons are

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L 16843-53

ACCESSION NR: AR3006323

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placed exactly one on top of the other. Using a method developed for these purposes, the authors obtain a system of equations for the calculation of the field harmonics in terms of coefficients that depend on the geometry and electric parameters of the plane-parallel grating. As a result of calculation, the values of the dispersions of the transmission coefficients $|D_0|^2$ and the reflection coefficient $|A_0|^2$ are calculated. The BESM-2 electronic computer is used to calculate and tabulate the values of $|A_0|$ and $|D_0|$ for three values of the parameter $u = \cos \pi d/\ell = 0.0, 0.2, \text{ and } 0.4$, with $k/2\pi = 0.2--3.2$ and $a/\ell = 0.25$. The dielectric employed was foamed polystyrene with $\epsilon = 1.03 + 0.00002 i$. B. Medvedev.

DATE ACQ: 15Aug63

SUB CODE: GE, SD

ENCL: 00

Card 2/2

S/058/63/000/003/084/104
A059/A101

AUTHORS: Provalov, A. V., Sheyko, V. P., Sidorenko, B. G.

TITLE: The problem of possibility of using dense wire gratings in an interferometer for measurements at UHF

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 24, abstract 3Zh140 ("Uch. zap. Khar'kovsk. un-t", 1962, v. 121, "Tr. Radiofiz. fak.", v. 5, 139 - 144)

TEXT: The applicability of dense wire gratings in the extremely high frequency range is examined. The calculated results for the reflection coefficient and the transmission coefficient of electromagnetic waves through such gratings with different wave lengths and different angles of incidence ψ are given. The experimental verification of this dependence with an UHF analogue of the optical interferometer in the 7.8 to 8.5 mm band at $\psi = 0^\circ$ and 45° showed a satisfactory agreement with calculation in the Fraunhofer diffraction band at a distance of 70 cm. The double-diffraction grating with different distances between the single gratings at a random angle of incidence has also been exa-

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The problem of possibility of using dense wire...

S/058/63/000/003/084/104
A059/A101

mined. It was shown that the resolving capacity of the UHF interferometer with double-diffraction grating exceeds the resolving capacity of Michelson's and Boltzmann's interferometers. Maximum resolving capacity for each wavelength is obtained at a specified optimum distance between the single gratings. In order to increase the clarity of interferometer patterns, the number of gratings in the interferometer should be increased.

V. Medvedev

[Abstracter's note: Complete translation]

Card 2/2

TSFAS, B.S., dotsent, kand.tekhn.nauk; MATVEYEV, A.P., assistent;
PROVATCROV, Yu.A., student; SHEVCHENKO, V.A., student;
GOLOVNYA, A.V., student; SURKIN, V.I., student

Results of static tension tests of steel cylindrical specimens
having circular single and group notches, and of smooth-roll
burnisched specimens. Sbor.dokl.Stud.nauch.ob-va Fak.mekh.sel'.
Kuib.sel' khoz.inst. no. 1:72-78 '62. (MIRA 17:5)

1. Kuybyshevskiy sel'skokhozyaystvennyy institut.

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343410003-2

PROBAZNIK, Frantisek, prof., ins. dr.

Unstabilized unidemensional heat flow in rod conductors. Zl
tech obzor 52 no.6:277-283 Je '63.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343410003-2"

PROVAZNIK, Frantisek, prof., inz. dr.

On the 60th birthday of Professor Frantisek Jansa. El tech obzor
52 no.6:336 Je '63.

1. Vedouci katedry teoretické elektrotechniky a elektrických
strojů, Vysoká škola dopravní, Zlín.

PROVAZNIK, Frantisek, prof., dr., inz.

Equivalent thermal circuits. El tech kas 14 no.3:123-148 '63.

1. Vysoka skola dopravna, Zilina, ulica Marxova-Engelsa 36.

hydrogen-cooled turbogenerator. p. 347. *ELEKTROTECHNICKY OBZOR.*
ministerstvo strojirenstvi a Ministerstvo paliv a energetiky) Praha.
Vol. A3, no. 7, July 1954.

SOURCE: East European Accessions List, Vol. 5, no. 1, September 1956

45784
S/194/62/000/012/100/101
D271/D308

9.31.73

AUTHOR: Provaz, Josef

TITLE: A decoder at the input of a radiotelegraph receiver,
operating on four characteristic frequencies

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
no. 12, 1962, 23-24, abstract 12-8-46 yu (Czech. pat.).
cl. 21a1, 7/08, 21a4, 25, no. 100939, Sep. 15, 1961)

TEXT: A decoder is proposed for a two-channel FM radiotelegraph
receiver; its basic unit is composed of three bistable circuits,
with electron tubes (or transistors); the circuits are connected
in parallel to the discriminator output. Each respective circuit
reacts to a signal of a predetermined level. At any instant the
combination of states of the three bistable circuits corresponds
to the characteristic frequency received. The signal which is a
DC voltage of varying level and polarity is brought from the dis-
criminator (via a resistive potential divider) to the inputs of
all three parallel connected bistable circuits, and that one of

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A decoder at the input ...

3/194/62/000/012/100/101
D271/D308

them operated which is adjusted for this level and polarity. State-information signals are taken from the outputs of bistable circuits and passed to two amplifiers (signals from two bistable circuits, through coercion resistors, are directed to one amplifier). The outputs of these amplifiers constitute the outputs of channels A and B. It is pointed out that the use of an adjustable resistive potential divider at the input of bistable circuits makes it possible to readjust the operating levels of the bistable circuits, in the case of irregular frequency deviation; this feature ensures faultless operation of the decoder. / Abstracter's note: Complete translation. /

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"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343410003-2

PROVAZNIK, Frantisek, prof. inz. dr.

Symmetry elements, El tech obzor 53 no.11:Suppl.: 53 no.11,T49-T58
'64.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343410003-2"

PRAVATSKA, Jan; SVA/Ra, Miroslav

Rapid complexometric determination of metallic ingredients
in iron and cobalt silicides. Chem listy 58 no.10:1158-1161
0 '64.

J. A. J. Popov Research Institute of Telecommunication
Engineering, Prague.

PROVAZNIK, Jaroslav

Stator liners of asynchronous motors cast in chill molds.
Slevarenstvi 12 no. 5:179 My '64.

1. Ceskomoravska-Kolben-Danek Praha, zavod Slevary.

PROVANNIK Jaroslav

Experiences in casting electroconductive copper alloys. Slevnář-
ensví 12 no.6:224-225 Je '64.

i. Českomořavská-Kolben-Danek Prague, závod Slevárny.

PROVAZNIK, M., inz.

Single-band high-frequency apparatus with transistors for the transmission
on high voltage lines. Slaboproudý obzor 24 no.3:177-178 Mr '63.

PROV. KIN. 4, 1954.

The STA-62 LT-1 multichannel telemeterical equipment. Slaboproudly
obazar 12, no. 355. Ja 165.

PROVAZNIK, M., inz.

Electronic telemechanism with magnet core. Slaboproudý obzor
24 no.8:486 Ag '63.

FROVAZNIK, M., inz.

Conference on the use of high-voltage networks for transmission
of information. El tech obzor 51 no.3:123-124 Mr '62.

PROVANIK, M. I.

High frequency transmissions on extra high voltage multiple
conductors. EI tech obzor 53 no.11:627-628 N '64.

PROVAROV, K.L., prof., doktor tekhn.nauk

Accuracy of a chain of triangles with measured sides and angles.
Izv.vys.ucheb.zav.: geod. i aerof. no.3:33-50 '59. (MIRA 12:11)

1. Novosibirskiy institut inzhenerov geodezii, aerofotos"zemki i
kartografii.

(Triangulation)

PROVOROV, P.I.

Condition of external respiration following thoracoplasty in
tuberculosis patients. Probl.tub. 37 no.4:82-87 '59.
(MIRA 12:10)

1. Iz Glavnogo voyennogo gospitalya imeni akad.N.N.Burdenko.
(RESPIRATION, physiol.)

eff. of thoracoplasty (Rus))
(COLLAPSE THERAPY
thoracoplasty, eff. on resp. (Rus))

ZAYTSEVA, V.D.; PROVOROV, V.N.; KHAZANOV, V.S.; KIZICHEVA, A.V.; PETROVA, V.D.

Method for determining the blackness of the coats of varnish.
Kauch. i rez. 20 no.6:47-49 Je '61. (MIRA 14:6)

1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh
izdelyi.

(Boots and shoes, Rubber)
(Varnish and varnishing)

1. PROVATOVA O.M., LYSINSKAYA Z.V., VOLPIN YE.I.
2. U SR (600)
4. Vol'pin Ye. I.
7. "Sanitation and hygiene in the meat and milk industry." Moloch.prom. 1^h
no.2, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

PROVAZ, J.

PROVAZ, J. Determining the thermo-coefficient of inductance. p. 226

Vol. 4, no. 8, Aug. 1956
SDELOVACI TECHNIKA
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

PROVAZ J.

CZECHOSLOVAKIA/Radiophysics - Reception of Radio Waves

I-6

Abs Jour : Ref Zhur - Fizika, No 2, 1958, No 4190

Author : Provaž Josef

Inst : Not Given

Title : Simplified System for Distributed Reception

Orig Pub : Slaboproudý obzor, 1957, 18, No 6, 358-362

Abstract : Examination of the development of research on the creation of Czechoslovakian apparatus for the reception using three distributed antennas (Tesla ZVP 1, Tesla ZVP 2). The results of the experimental operation of the apparatus with three and two channels is cited for the purpose of determining the effectiveness of these systems and deciding the trends for further work. The sufficient effectiveness of a system with two channels has led to the development of simpler apparatus -- Tesla ZVP 3. In accordance with the requirements of certain services, particular attention was paid to the verification of the operation of a new system with a single receiver. Connected to this receiver automatically is one of two antennas depending on the level of the signal at a given antenna. A

Card : 1/2

FRANZ, J.

A simplified diversity receiving equipment. p. 353. (SLABOPRUDY OBZOR,
Vol. 13, No. 6, June 1957, Praha, Czechoslovakia)

EO: Monthly List of East European Accessions (SEAL) LC, Vol. 6, No. 12, Dec 1957. Unci.

PROVAZ, J.

"Methods of compensation of the thermocoefficient of an induction coil."

p. 373 (Sdelovaci Technika) Vol. 5, no. 12. Dec. 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

PRUVAZ, J.

Methods of calculation of parallel operation, p. 73, SDELOVACI
TECHNIKA (Ministerstvo strojirenstvi) Praha, Vol. 2, No. 3, Mar.
1954

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1955

PROVAZ, J.

PROVAZ, J. Heat coefficients. p. 77

Vol. 4, no. 3, Mar. 1956

SDELOVACI TECHNIKA

TECHNOLOGY

Praha, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

PROVAZ, J.

PROVAZ, J. Significance of heat compensation in the oscillation of high-frequency
circuits. p. 11

Vol. 4, no. 1, Jan. 1956
SDELOVÁCI TECHNIKA
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

PROVAZ, Josef; KHRABAN, O.G., kand. tekhn. nauk [translator];
LINDE, D.P., kand.tekhn.nauk, red.; DROZDOVSKAYA, I.S., red.;
REZOUKHOVA, A.G., tekhn. red.; IOVLEVA, N.A., tekhn. red.

[Temperature compensation of the instability of high-frequency circuits] Temperaturnaia kompensatsiia nestabil'-nosti vysokochastotnykh konturov. Pod red. D.P.Linde. Moskva, I Izd-vo inostr.lit-ry, 1960. 214 p. Translated from the Czech.

(MIRA 15:7)

(Microwaves) (Electric networks) (Microwave wiring)

An attempt to establish a connection between the nutritive character of the soil and the composition of manure produced by animals fed on crops from the soil in question. František Duchon and Josef Pravzick. *Státní Církevní Akad. Zemědělské*, 13, No. 2 (1938); *Chem. Centra*, 1938, II, 759. Analysis of the manure and determination of the P₂O₅ and K₂O contents of the soil and of the feed received by the animals producing the manure indicated that the nutritive content of the fertilizer was derived not alone by the nutritive content of the feed but also by that of the soil producing the feed. The soil has a marked effect on the nutritive character of the manure. If the soil lacks a definite nutritive substance then this deficiency is transferred through the cycle to the manure.

M. G. Moog

PROVÁZEK, J.

Drives of bucket-type excavators and unloaders.

P. 11. (ELEKTROTECHNIK) (Praga, Czechoslovakia) Vol. 13, no. 1, Jan. 1958

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, May 1958

PROVAZNIK, F.

""Uniform circular diagram of a three-phase induction motor."

Elektrotechnicky Obzor. Praha, Czechoslovakia. Vol. 48, no. 2, Feb. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

PROVANIK, F.; STRONDAL, J.

Group water supply of Kružberk. p. 119.

VODNÍ HOSPODÁRSTVÍ. (Ustřední správa vodního hospodarství)
Praha, Czechoslovakia
No. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 7
July 1959
Uncl.

L 15660-63

EWP(r)/ENT(l)/EPF(n)-2/BDS AFFTC/ASD/SSD Pu-1

ACCESSION NR: AP3003055

7/0017/63/052/006/0277/0283

AUTHOR: Provaznik, Frantisek (Professor, Engr, Dr)

59

TITLE: Unstabilized one-dimensional heat flow in a rod conductor

SOURCE: Elektrotechnicky obzor, v. 52, no. 6, 1963, 277-283

TOPIC TAGS: heat conductor, heat flow, Laplace-Carson transformation

ABSTRACT: The present paper was written because of a relative absence of information on the heat flow inside single bodies in publications dealing with the heating up of parts, such as those in electrical machinery; usually, the investigation is concerned only with the heat transfer between parts. The heating up of a rod conductor was investigated in terms of an unstabilized one-dimensional heat flow. The time interval in the heat distribution is expressed by the equation $\Delta = f(x, t)$, which is considered a suitable relation for investigating cases of an unstabilized heat flow. Partial differential equations are solved by means of the Laplace-Carson transformation and results are rearranged to suit practical purposes to permit an introduction of appropriate

Card 1/2

L 15660-53

ACCESSION NR: AP3003055

simplifications. The analysis proves that the thermal conductivity and transfer from the surface of the body is an essential factor in the heating-up process. The heat flow in the body exerts a considerable influence on the distribution of temperature, but has practically a negligible effect on the time-dependent course. In formulating the heating-up process in a single body it is usually assumed that no heat flow takes place within the body. This assumption may refer to a mean temperature and agrees with experimental results only in cases where the longitudinal heat flow must pass a relatively great resistance, such as the flow of cooling air. In the conclusion an equivalent thermal circuit of unstabilized heat flow and a suitable numerical example are presented. Orig. art. has: 3 figures, and 38 formulas.

ASSOCIATION: none

SUBMITTED: 14Feb63

DATE ACQ: 24Jul63

ENCL: 00

SUB CODE: PH

NO REF Sov: 001

OTHER: 005

Card 2/2

PROVAZNIK, FRANTISEK.

Synchronni stroje.

Praha, Czechoslovakia. Technicko-vedecke vydavatelstvi, 1952. 343 p.

Monthly List of East European Acquisitions (EEAI), LC, Vol. 8, no. 11, Nov. 1959
Uncl.

39140-66

ACC NR: AP6030368

SOURCE CODE: CZ/0017/66/055/003/0131/0137

AUTHOR: Provaznik, Frantisek (Professor; Engineer; Doctor)

32

ORG: none

B

TITLE: Application of linear electric circuit theorems in a three-phase system with asymmetric power take-off

SOURCE: Elektrotechnicky obzor, v. 55, no. 3, 1966, 131-137

TOPIC TAGS: circuit theory, electronic circuit

ABSTRACT: For a three-phase system asymmetrically loaded the systems of equations of the positive, negative and zero phase sequences are set up according to the theory of Maxwell cycles or the theorem of neutral-point voltage. This is possible because the circuits of the positive, negative and zero-sequence systems exist as separate systems. For this reason it is possible to calculate the circuit of the positive phase sequence by means of the Helmholtz-Thevenin theorem of superposition and the theorem of parallel generators. The circuits of the negative phase sequence and the zero phase sequence are determined by means of the compensation theorem which takes into consideration the influence of the positive phase sequence on the negative phase and zero phase sequences. This paper was presented by Professor, Doctor, Engineer, Doctor of Sciences J. Kucera. Orig. art. has: 10 figures and 37 formulas. [Based on author's Eng. abst.] [JPRS: 36,811]

SUB CODE: 09 / SUBM DATE: 08Jan65 / ORIG REF: 003 / OTH REF: 002

ns
Card 1/1 UDC: 621.392: 621.316.11

0978 1091

Distr: 4E3d

621.313.1 : 621.317.39

6088. ELECTRICAL MODELS OF TRANSIENT HEAT FLOW IN
ELECTRICAL MACHINES." E.Proyazhuk.

Elektrotech. Obzor, Vol. 47, No. 4, 1958 (1958). In Czech.

Methods are described for the measurement of transient heat flow with the help of electric analogue circuits. Suitable circuits for the investigation of heat flow in the conductors and the iron cores of machines are discussed, separately and then for the whole armature. The effect of temperature variation of the cooling air along the ventilation channels is considered and an iterative method is given, resulting in improved accuracy in the determination of transient states of the machine.

N.Klein

3

1

PRAVZNIK, F.

Eddy currents in ferromagnetic materials in a stabilized state.

P. 96 (Ceskoslovenska akademie ved. Ustav pro elektrotechniku. Praha
Vol. 3, 1955 (Published 1956)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

PROVAZNIK, F.

A ferromagnetic cylinder of terminal length in a rotating magnetic field.

P. 114 (Automobil) Vol. 1, No. 5, 1956 (Published 1957) czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. - VOL. 7, No. 1, Jan. 1958

PROVAZNIK, F.

"Frantisek Kaspar's fiftieth birthday."

p. 554 (Elektrotechnicky Obzor) Vol. 46, no. 10, Oct. 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

PROVAZNIK, F.

Gas seal of electric machines for cooling hydrogen. p. 221.
(ELEKTROTECHNICKY OBZOR, vol. 44, no. 5, May 1955, Praha)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No.11,
Nov. 1955, Uncl.

PROVALNIN, T

4395. Hydrogen-cooled turbo-alternator. E. Pro-
VAZNÍK AND E. KAHRNA. Elektrotech. Obzor., 43, L
No. 1, 347-57 (1954) In Czech.

The first Czech hydrogen-cooled 62.5 MVA 11 kV
turbo-alternator is compared with types made in
other countries. The physical properties of cooling
gases are formulated, hydrogen requiring less powerful
fans than air, owing to its superior thermal con-
ductivity. The flow of hydrogen is turbulent in the
air gap and it proceeds in layers in the cooling ducts,
which results in increased cooling efficiency. In the
absence of oxygen, nitrogen and water vapour, the
windings in fact do not age at all. Heating charac-
teristics under load are compared among the types
cited. A special oil seal of the rotor shaft described
enables the purity of hydrogen concentration to be
maintained above 94% i.e. outside the explosion
range. Design and winding particulars of the Czech
type, as well as the economy of the oil seal equipment,
the circulation system and emergency provisions are
discussed. Before filling with hydrogen, carbon
dioxide is blown through the alternator to prevent the
forming of explosive mixture.

J. C. SPARK

(1)
MK

PROVANIK, F.

621.313-712
5010. The gas seal of hydrogen-cooled electric
machines. F. PROVANIK. *Elektrotech. Obzor*, 44

No. 5, 221-411955/44 Czech.

The tightness of the gas seals of hydrogen-cooled
electric machines is investigated quantitatively by a
method based on the Van der Waals' equation. The
permeability of the seal, expressed in m³ gas escaped
during 24 hours, is determined from the initial and
final parameters of the gas compressed in the seal to
about 1-2 atm. above gauge pressure. The effect of
the kind of gas and of its pressure are also investi-
gated.

ELECTRICAL RESEARCH ASSOCIATION

CZECH

171. The starting up of synchronous motors by means of an asynchronous generator. F. PROVAZNIK
Elektrotech. Obzor, 43, No. 1, 15-23 (1954) in Czech.

See previous abstract. A detailed analysis is given of the starting up of the synchronous machine, with particular reference to the load conditions in the rotor of the asynchronous motor. Formulae for the design of the asynchronous motor and of the motor starter are developed. Conditions during the starting-up period of a 16 MVA, 3000 r.p.m. machine are calculated and compared with actual test results.

H. NOREL

B. SCHW

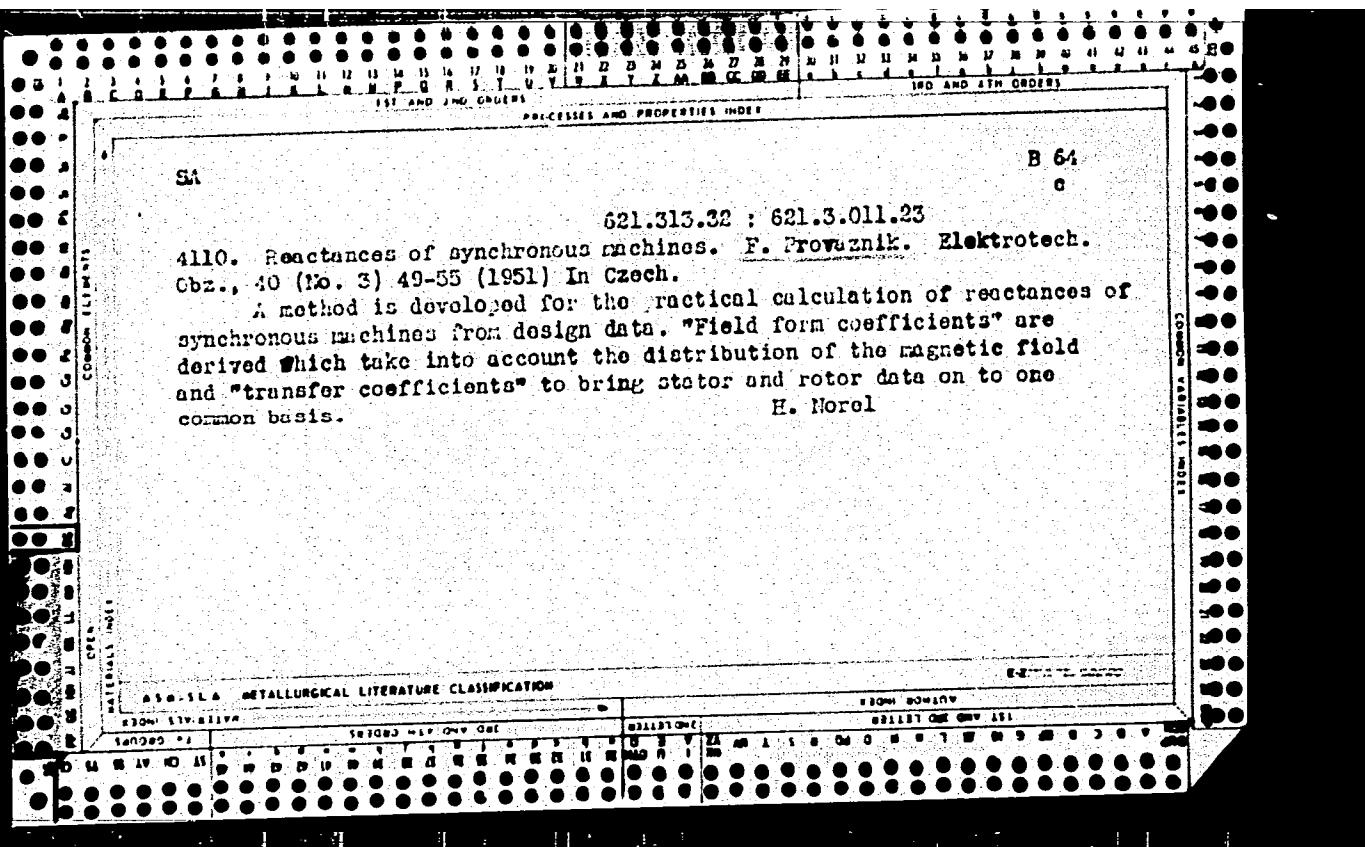
"Starting of synchronous motor by induction generators." (Mathematical analysis, calculation of example of starting at 16.1 VA, 3000 r.p.m. synchronous machine and comparison with experimental results). By F. Provazník

Elektrotechnicky Casopis (Electrical Engineering Review, Czechoslovakia), Vol.42, No. 12, Dec. 1953, pp. 665-712. (Air, AA, London, IR-594-54, 22 Mar 54, Unclassified)

PROVAZNIK, F.

"Energy Distribution during the Asynchronous starting of Induction and Synchronous Motors." p. 533.
(Elektrotechnicky Obzor, Vol.42, No.19, Oct. 1953, Praha.)

S.E.: Monthly List of East European Acquisitions, Library of Congress, March 1954, uncl.



PROVATIK, F.

3

621.316.717 : 621.313.333 : 621.313.323
4120. Energy conversion during the starting period
of induction and synchronous motors. F. Provatik.
CERNYOUN (Ober, 07/76) 1013(C) (1976)

The electrical energy supplied to an induction or self-starting synchronous motor is partly converted as heat and partly converted into mechanical energy during the starting process. The distribution between these two components depends on the electromechanical characteristics of the motor and on the mechanical characteristics of the driven machine during the starting period, thus on the relation of starting and retarding torque during the transient period. Several methods are given for calculating the energy relations during this period. The two components determining the character of the starting period are the energy converted into work by the driven machine and that stored in the rotating mass.

B. V. KRAAL

L 20059-66
ACC NR: AP6011081

SOURCE CODE: CZ/0017/65/054/011/0514/0519

AUTHOR: Provažník, František (Professor; Doctor; Engineer)

29

B

ORG: none

TITLE: Asymmetric loading of single-phase transformers in Scott connection

SOURCE: Elektrotechnicky obzor, v. 54, no. 11, 1965, 514-519

TOPIC TAGS: electronic circuit, electric transformer, electric impedance

ABSTRACT: The asymmetric loading of single-phase transformers in Scott connection is solved as a system of two transformers, both single-phase, the first with two windings, the second with three. A general solution with asymmetric impedances of the transformer and asymmetric leads on both sides is possible only as a three-phase circuit. According to the given equations, the two-phase secondary circuit is converted to a three-phase circuit. If the impedances of the two phases of the primary circuit are equal, the asymmetric loading can be treated as a two-phase system. The equivalent circuit is two-phase with the converted primary values. Orig. art. has: 5 figures and 29 formulas. [JPRS]

SUB CODE: 09 / SUBM DATE: 01Mar65 / ORIG REF: 001

UDC: 621.314.2.001

Card 1/1 LJC

AUTHORS

Provazník, Jan, and Mojžíš, Jan
The use of anodic stripping polarography for the
detection of microgram quantities of lead in zinc,
gallium, antimony and arsenic

Z/008/61/000/011/003/003
E112/E135

TITLE

PERIODICAL: Chemické listy, no. 11, 1961, 1299-1303

TEXT

1. 10^{-3} % lead in highly refined zinc and the detection of $3 \cdot 10^{-5}$ to
semiconductor techniques) are submitted, employing as used in the
stripping polarography. Results of detection of $2 \cdot 10^{-5}$ to $2 \cdot 10^{-3}$ % lead
determination in gallium are tabulated, and a polarogram for Pb-
the sample (in %) is computed from the following equation:

$$Pb (\%) = \frac{a \cdot v_2 \cdot 10^{-4}}{(v_1 - v_2) \cdot n}$$

Card 1/5

Z/008/61/000/011/003/003
E112/E135

The use of anodic stripping . . .

where v_2 = peaks (in mm) obtained from the tested solution;
 v_1 = peaks from tested solution on addition of standard lead
solution; a = μg Pb added to sample; n = equivalent amounts of
sample (in grams) corresponding to 10 ml of sample solution.
Detection of Pb in antimony and arsenic requires preliminary
removal of As and Sb by distillation as bromides. The procedure
is described in detail and results of Pb-detection in large
excesses of As and Sb are tabulated.

There are 1 figure, 3 tables and 12 references: 5 Soviet-bloc and
7 non-Soviet-bloc. The four most recent English language

references read as follows:

- Ref. 7: J.G. Nikelly, W.D. Cooke. Anal. Chem. Vol. 29, 933 (1957).
Ref. 8: W. Kemula and Z. Kublik. Anal. Chim. Acta, Vol. 18, 104 (1958).
Ref. 9: W. Kemula, Z. Kublik, S. Glodowski. J. Electroanal. Chem.

Vol. 1, 91 (1959/60).

Ref. 10: W. Kemula, E. Rakowska, Z. Kublik. J. Electroanal. Chem.

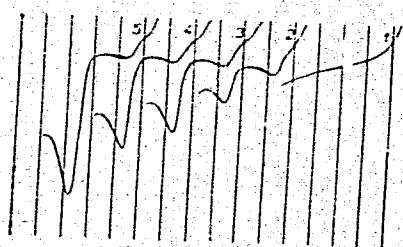
Vol. 1, 205 (1959/60).

ASSOCIATION: Výzkumný ústav pro sdělovací techniku A.S. Popova,
Praha (A.S. Popov Telecommunications Research
Institute, Prague)

Card 2/3

The use of anodic stripping

Fig. 1. Detection of lead in gallium



Z/008/61/000/011/003/003
E112/E135

Curve 1 - 0.1 N HCl,
Curve 2 - sample,
Curve 3 - sample + 1 μg Pb,
Curve 4 - sample +
1.5 μg Pb,
Curve 5 - sample + 3 μg Pb,
 $E = 2 \text{ V}$,
 $S = 1/5.$

SUBMITTED: March 9, 1961
Card 3/3

Z/008/61/000/001/005/005
E112/E253

AUTHORS: Provazník, Jan and Knížek, Miroslav

TITLE: Copper Determination in Highly Purified Antimony

PERIODICAL: Chemické listy, 1961, No. 1, pp. 79-82

TEXT: Highly purified antimony derivatives are gaining importance as semiconductors, but their conductivity characteristics are adversely affected by traces of impurities. Copper, for instance, produces in semiconductors centres of recombination, which influence their physical properties. The literature contains only a few references to the detection of traces of impurities in antimony. The authors describe a spectrophotometric determination of copper in pure antimony, permitting its detection at concentrations of $5 \cdot 10^{-5}$ - $2 \cdot 10^{-3}\%$. The method is based on extractions with sodium diethyl-dithiocarbamate and its determination in the extracts, by the UNICAM SP 600 spectrophotometer, using calibration curves from standard solutions: an 0.5 g antimony sample was dissolved in a silica beaker in 1 ml. HNO_3 , 1.5 ml 10 M-HCl and 6.5 ml of a solution of ammonium tartrate. After concentrating to half its volume, the solution was transferred with distilled water to a 100 ml separating funnel. After

Card 1/2

Z/008/61/000/001/005/005
E112/E253

Copper Determination in Highly Purified Antimony

addition of 10 ml Complexon III, 5 ml ammonium citrate and two drops cresol-red indicator, the solution was neutralized with purified ammonia. 5 ml of a 0.1% solution of Cupral (sodium diethyldithiocarbamate) and 3 ml chloroform were then added, and the chloroform extract separated after 2 minutes shaking. The extraction was repeated twice and the combined extracts were for Cu determination. Methods for the purification of the reagents are described. Traces of copper are eliminated by extracting with Cupral. If the analysed sample contains more than 5 µg bismuth, this is removed by shaking the chloroform extracts with 5 ml 5M-HCl. A table summarizes the results and demonstrates the accuracy of the method. Acknowledgements are expressed to Engineer E. Rubes and Engineer V. Häckl for their interest in this work. There are 1 table and 11 references: 1 Czech and 10 non-Czech.

ASSOCIATION: Výzkumný ústav pro sdělovací techniku A.S.Popova,
Praha
(A.S.Popov Telecommunication Research Institute,
Prague)

SUBMITTED: June 24, 1960
Card 2/2

"APPROVED FOR RELEASE: 06/15/2000

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CIA-RDP86-00513R001343410003-2"

PROVAZNIK, Josef'

After the conference of socialist work brigades. Prace mzdza 12
no.3:97-99 Mr'64.

PROVAZNIK, M., inzo.

New high-frequency transmission equipment for telecommunication
systems. Slaboproudý obzor 24 no.6:371 Je '63.

ProvaZnik, M.

621.395.44 ; 621.311.2
✓ 5327. Czechoslovak conception of the h.f. telecommunication equipment for power stations. M. PROVANIK. *Slaboproudý Obzor*, 16, No. 6, 297-300 (1955) in Czech.

Two communication systems are compared from the point of view of bandwidth economy and the reliability of operation: (1) the combined system which consists of a telephone channel and several telemetering and control channels, occupying a total bandwidth of 4 kc/s; (2) the latest Czechoslovak, single-purpose system which comprises an independent telephone and a 12-channel telemetering equipment [Abstr. 5328 (1955)]. It is shown that the single-purpose system is superior to the combined system.

R. S. SIDOROWICZ

PROVAZNIK, N., inz.

Device for high-frequency cutting of the distance protection
of a dual extra-high voltage line and extra-high voltage line
with three terminals. El tech obzor 53 no. 2:108-109 F '64.